From: Chase Olivarius-McAllister Sent: Tue 2/3/2015 11:57:33 PM Subject: Re: Durango Herald - questions Thanks Cynthia. I'll call tomorrow. Х On Tue, Feb 3, 2015 at 4:37 PM, Peterson, Cynthia < Peterson. Cynthia@epa.gov > wrote: Dear Chase, I realize that you had hoped to have this information earlier, but it took me some time today to gather our responses to your questions. Please note: Paula's last name is Schmittdiel. The model you referenced is the One-Dimensional Transport Equilibrium Chemistry (OTEQ) Model. The EPA is conducting investigations throughout the Upper Animas River watershed for the following reasons: • During the past three to four years, the EPA in coordination with the US Geological Survey (USGS) and U.S. Bureau of Land Management (BLM), have collected extensive water quality, stream flow and sediment data in Cement Creek and in the Animas River both above and below Silverton. • USGS has used this data in its "One-Dimensional Transport with Equilibrium Chemistry" (OTEQ) model to evaluate the metal loading and sources within the Animas River watershed. • 🗆 🗆 🗅 🗅 The OTEQ model was used to evaluate the effectiveness of two remedial options to address the significant sources of metal loading to the Animas River from Cement Creek. The remedial options that were evaluated in the model were to: 1) plug the Red & Bonita mine adit; and 2) "re-create" the conditions in the Animas River downstream of the Cement Creek confluence when the water treatment plant at Gladstone was operating in 1996. • 🗆 🗆 🗆 🗆 In presentations to ARSG, the Silverton community and the La Plata county commissioners last September, USGS presented the initial results of the OTEQ modeling, which showed that neither remedial option would achieve Colorado's chronic water quality standards in the Animas River.

Peterson, Cynthia[Peterson.Cynthia@epa.gov]

To:

• Cement Creek is an important, and probably the most significant, source of metal loading to the Animas River. However, as demonstrated by the OTEQ model, upstream loading of metals, such as cadmium, to the Animas River above Silverton during low-flow conditions exceed 25% of the metal load reporting to station A72 (about 1 mile below Silverton). Similarly, aluminum loading from Mineral Creek is about 45% of the total aluminum reporting to A72. These results indicate significant metal loading that is distinct from Cement Creek.
• • • • • Additionally, EPA sampling results from 2009-2012, which are consistent with previous results from USGS, indicate that concentrations of cadmium and zinc in the Animas River prior to runoff reach levels that significantly impair aquatic life above Cement Creek. These results were presented at the April 2014 ARSG meeting and are on the ARSG website (http://www.animasriverstakeholdersgroup.org/attachments/File/EPA%20Assessment%20Status%20and%20
•□□□□□□□□ The significance of metal concentrations in the Animas River above Cement Creek were also presented and discussed in EPA's February 2013 Screening Level Ecological Risk Assessment.
• □ □ □ □ □ □ □ □ The EPA and BLM have not changed their "interpretation." Our evaluation of the data and information collected to date indicates a need for additional investigation to determine which sources of metal loading should be addressed to improve water quality in the Animas River.
It is premature to assign potential liability to Sunnyside Gold Corporation or any other entity until we have a more comprehensive understanding of the nature and extent of the problem in the larger watershed.
Please feel free to contact me if you have any questions or would like additional information.
Best regards,
Cynthia

## Cynthia Peterson

Community Involvement Coordinator

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From: Chase Olivarius-McAllister [mailto: Personal Email/Ex. 6

Sent: Monday, February 02, 2015 4:43 PM

To: Peterson, Cynthia

Subject: Durango Herald - questions

Dear Cynthia,

Thank you so much for taking the time to speak with me on the phone.

At the most recent meeting of the Animas River Stakeholders Group, Paula Schmidil said:

"I think one thing you can look at is the [OPEC] model that was presented last September. That demonstrates that not all the contamination is coming from Cement Creek. So addressing - just focusing on Cement Creek - may not get us to where everybody would like to be an improvement in Animas River water quality."

Over the course of the last two years, in previous interviews, EPA officials and scientists have always said that Cement Creek is the crux of problem in the Animas River.

Is there new data to suggest that it isn't? Why is the EPA seemingly changing its interpretation of what's causing the environmental damage to the Upper Animas River?

Sources close to the ARSG have characterized Schmidil's statement as a "departure" for the EPA, and some say the EPA's seemingly new stance is more congenial to Sunnyside's inisistence that it is not liable for metal loading in the Upper Animas.

What is the EPA's opinion of Sunnyside's liability?

I'm on deadline. Please get back to me this evening or latest tomorrow morning. If you feel uncomfortable commenting on certain questions, feel free to simply respond that you do not feel comfortable commenting.

Yours, Chase

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